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EX PARTE OR LATE FILED

USWEST

Robert H. Jackson
Executive Director-
Federal Regulatory

Ex Parte

December 4, 1996

William F. Caton, Acting Secretary
Federal Communications Commission
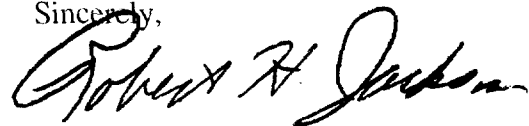1919 M Street, N.W.
Room 222, SC-1170
Washington, D.C. 20554

Re: **CC Docket No. 95-116,** *Telephone Number Portability*

Dear Mr. Caton:

On December 4, 1996, the attached letter was sent to Susan McMaster of the Common Carrier Bureau in relation to the above-captioned proceeding. A copy also was sent to the Commission employees listed below. Please include a copy of the letter in the record in this docket.

Acknowledgment and date of receipt of this letter are requested. A duplicate letter is attached for this purpose.

Sincerely,

[signature: Robert H. Jackson]

cc: Andre Copelin
        Mary De Luca
        Gregory Forbes
        Marian Gordon
        Jason Karp
        Jim Keegan
        Geraldine Matise
        Susan McMaster
        Kent Nilsson
        Jeannie Su
        Richard Welch

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December 4, 1996

Susan McMaster, Ph.D, Industry Economist
Policy & Program Planning Division
Federal Communications Commission
1919 Street N.W., Room 544
Washington, D.C. 20554

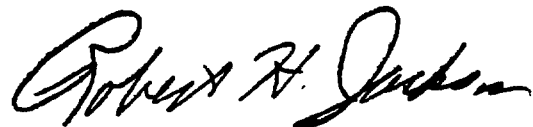Re: : **CC Docket No. 95-116,** *Telephone Number Portability*

Dear Dr. McMaster:

On October 17, 1996, U S WEST, Inc. filed cost data under proprietary cover with the Commission in this proceeding. The data related to U S WEST Communications' ("USWC") estimates of the costs of deploying local number portability . In early November, you asked several clarifying questions about the cost data. Attached are answers to those questions. We are not claiming confidentiality for these answers attached hereto.

I apologize that these answers took so long to prepare. Some of the delay resulted from our desire to get more and better information from our vendors. USWC has made significant progress in vendor negotiations and, as a result thereof, has a better understanding of the impact of local number portability on USWC, its network and its customers. We expect to file revised cost estimates under protective cover in the near future.

If you have any further questions, please feel free to call.

Sincerely,

cc: Andre Copelin
        Mary De Luca
        Gregory Forbes
        Marian Gordon
        Jason Karp
        Jim Keegan
        Geraldine Matise
        Susan McMaster
        Kent Nilsson
        Jeannie Su
        Richard Welch

These are responses to questions asked by the FCC staff concerning U S West Communication' October 10, 1996 filing in CC Docket No. 95-116 regarding telephone number portability.

1. Capital Section 2. SS7 Equipment, A.:
What are the administrative functions associated with the SMAS?
Of the total SMAS costs, what percent are administrative?

The SMAS (a.k.a. SMS) is an up-stream system used to obtain and populate Number Portability routing information into LNP data bases. When a customer *ports* (is sent) to another service provider, the information supporting this activity is collected into a Number Portability Administration Center (NPAC). The NPAC is a national repository of authorized ported numbers. The NPAC will be connected to a Service Management System (SMS) that will be owned and operated by USWC. The SMS provides Number Portability routing information to appropriate SCP data bases.

The entire functionality of the system is administrative and for the sole use of Number Portability.   There are no other spare systems of this type within U S WEST Communications (USWC) to support this activity.

Some of the significant administrative functions are:
*   Interface to other USWC systems including Service Order, Repair, Assignment and directory all as required to update and annotate the appropriate records.
*   Interact with NPAC-SMS regarding the ported number
*   Establish translations in the LNP SCP
*   Establish translations in the required STP's
*   Coordinate required SSP translations for ported NXXs
*   Coordinate required SSP translations in donor switch

2. Section 2. SS7 Equipment, B. Switch Ports:
How many switch ports are being added?

Switch ports are required to support LRN capacity increases. Switches types include SCPs, SSPs, and STPs that are part of the CCS/SS7 network and link to Number Portability SCP data bases. There are 1,160 port additions to exclusively provide the network link capacity necessary from local and regional STPs to associated SCP data bases, to STP mated pairs, and to SSP capable End Offices for LRN query increases through SS7.

Ports on the switches are being added to accommodate the increased signaling generated by LRN queries. A total of 120 ports will be added on the switches across the region. A total of 824 new links are required to support the anticipated queries. Each link requires 2 ports located where there are existing ports available on some STPs.

3. Section 2. SS7 Equipment, C. -- Processor capacity:
How much processor growth did we assume and what supports those assumptions?

The following steps explain how USWC arrived at its forecast that its common channel signaling (CCS) network must be capable of handling approximately 5,500 additional queries per second once number portability is deployed.

Step No. 1: Calculate the average number of call attempts per line. USWC estimates that, on the average, each of its customer's access lines originates 1.81 call attempts during the busy hour

(or busy hour peg count). USWC calculated this figure by dividing the total call attempt rate during the busy hour (approximately 26 million) by the total number of lines (14.3 million year end 1995). this 1.81 busy hour peg count (BHPC) is within the range of published studies such as the LATA Switching Systems Generic Requirements (LSSGR).

Step No. 2: Calculate the average number of call attempts per line which will require a number portability database query. USWC estimates that, on average, each customer access line will originate 1.27 call attempts during the busy hour which will require a number portability database query. Calling patterns can differ dramatically between different switches. For example, in smaller communities, most local traffic is intraoffice traffic while in larger metropolitan areas most local traffic is interoffice traffic. On average, however, traffic patterns in USWC's network is as follows: (a) 11% in interLATA; (b) 65% is interoffice; and (c) 24% is intraoffice.

USWC will not originate number portability queries on the interLATA calls made by its customers. Portability queries likewise need not be performed on intraoffice calls. Predominantly, portability queries will be performed on interoffice calls which, on average, approximate 65% of all call attempts.

USWC will lose customers to competition and, for these lost customers, USWC will no longer have to originate their calls (or process number portability queries for them). However, line growth remains strong given the population growth in the West and consumers' growing need for telecommunications (e.g., facsimile, Internet) which, in turn, often requires a second, third or even fourth line. USWC therefore estimates that, notwithstanding the loss of some customers to facilities-based competition, that over the next five years it will experience a net increase in access lines. In addition, number portability will be deployed initially in the larger metro-politan areas where there is a higher percentage of interoffice traffic compared to intraoffice traffic. USWC has therefore estimated that, over the next five years, its network must be capable of generating number portability queries on 70% of the call attempts made by its customers during the busy hour - or a busy hour peg count of 1.27.

Step No. 3: Estimated region-wide increase in CCS queries per second. USWC estimates that, region-wide, number portability would generate approximately 6,200 additional CCS queries per second if number portability were deployed ubiquitously. USWC calculated this figure as follows: USWC estimates that, by the end of year 2001 it will serve a total of 17.6 million access lines. Multiplying this estimate by the average portability busy hour peg count of 1.27 results in a total busy hour peg count of 21,296,000. Converting this figure to queries per second results in approximately 6,200 CCS queries per second.

Step No. 4: Estimated queries in areas covered by portability mandate. Number portability will not be deployed ubiquitously, at least initially. USWC estimates that, given the 10 MSA end-of-1998 requirement, coupled with other areas where carriers will request number portability, that its network must be capable of supporting only 90% of the total, region-wide number of portability queries. Ninety percent of 6,200 queries per second approximates 5,500 queries per second. USWC therefore estimates that, to support number portability in the areas where the capability will likely be provided, its network must be capable of supporting, overall, 5,500 CCS queries per second.

4.   Section 2. SS7 Equipment, E. EFI:
What are the ordering costs?
Are these costs associated with the contract process?
How much are these costs?

Total ordering costs associated with a typical expenditure are about 10% of the material value. The 10% level has proved to be historically accurate over a broad range of equipment, locations and total magnitude of work. Each site has a unique equipment configuration because of local market demands. Site engineering studies must be conducted to establish a specific cost. Such studies will be conducted as part of the ordering process. This means USWC and the vendor engineer precisely what needs to be done per switch location. In addition to engineering costs for a typical installation, prices are included for testing, turn-up activities as well as transportation and handling.

Ordering includes:

1. Examination of existing records to determine what must be done at a specific site

2. Specific cost estimating for each site

3. Preparing and submitting the required purchase documentation

4. Verification of invoice, billing and payment

5. Verification of vendor performance including placement of components purchased and maintenance schedule

6. Updating required diagrams and drawings

7. Archiving appropriate records

5. Section 3. A. Switching Equipment:
What are the engineering start-up costs (describe) and the associated work?

These are the flat rate charges from Nortel to open any job they engineer on switches. These additional engineering costs from Nortel depend on the scope and complexity of the job.

6. Section 3.T. 1AESS Replacements:
Why are the numbers in this section repeated?
What are the assumptions underlying the depreciation figures?

The numbers included in the column represent the time value of money and the lost depreciation on replacements of the 1AESS switches. The numbers in parentheses in the description are merely breakdowns of the totals in the columns (i.e. the 1st numbers in each of the parentheses, $31,500 and $64,000, total to $95,500, the total for the top 10 MSA's).

The time value of money amounts were calculated by comparing when each 1AESS switch would reach exhaust prior to implementing number portability to the dates that exhaust would be reached after implementing number portability. A 10.5% discount rate was then applied to the expected cost of the replacement to arrive at the incremental cost incurred due to number portability.

The lost depreciation amount was arrived at by comparing the switches being replaced to the remaining book value of the 1AESS switches at the time of replacement.

7. Section 5. LRN Software:
What is the difference between basic and deluxe software?
What are the cost differences?
Why should ratepayers fund the costs of deluxe software?

Unlike other vendors, Lucent for its 5ESS switch (but not its 1AESS switch) has developed two different LRN software packages: basic and "deluxe." The basic package supports LRN but disables existing AIN features. Therefore, current customers who receive AIN services could

3

not receive them in the future with the basic package. The so-called "deluxe" package re-instates the feature functionality of existing AIN triggers that the basic package disables. Consequently, USWC has no choice but to purchase the "deluxe" feature - even though Lucent charges 33% more just to retain existing features. As this explanation shows "deluxe" merely is a required package to maintain existing functionality of our switch and has nothing to do with "gold plating".

8. Section 6. AIN and Section 7. SS7 Software:
Do we assume that all AIN and SS7 software costs are properly associated with LNP?
Won't AIN and SS7 be used with other services?
If the AIN software and SS7 software costs are allocated to LNP and other products or uses, how much is the allocation?
How do we support the allocation?

USWC rolls out new services when an acceptable market demand is perceived to exist and the service has the potential to be profitable. In many cases a new service will not be introduced because potential demand doesn't justify the cost of the service. In certain cases services are never introduced because newer services replace them before they can be cost justified.

In the cases of AIN and SS7 costs included in our filing we are only including costs where we have no plans to roll out services in those areas. If we planned to roll out services requiring this software, it was excluded from our number portability cost data. To deploy and allocate cost to services for which we made a rational business decision not to introduce in the past would be inappropriate.

An example of this is the Minneapolis MSA. Included in this MSA are Pine City (access lines: 4,076, Rush City (1,874) and Brahm (2,100). It is unlikely USWC will ever deploy new AIN and SS7 services due to lack of demand.

9. Section B.1.A. Systems Modification:
What is service recording? What does it do?

Service Recording is the functionality by which a database records activity history, current status including known "owner", routing information, and other data pertinent to a ported number. This data will not be stored in current OSSs due to the costs of such modification, yet the information is necessary to support USWC personnel in performance of their work involving the ported number (i.e., Service Assurance, etc.)

10. Section B.3 Service Assurance:
What are the specific costs and work functions (e.g. what is Netminder)?

LMOS (Loop Maintenance Operations Systems): $15,000 expense

> Bellcore programming to handle LNP Field Identifier (FID). Permits the recording of address, telephone number, and facilities assignment data for number services, repair and maintenance.

MYNAH (vendor name): $10,000 expense

> Programming to handle LNP FID. Permits automated intra- and intersystem operations for Service Assurance systems.

MTAS (Mechanized Trouble Analysis System): $10,000 expense

> Programming to handle LNP FID. Permits reporting of maintenance and repair measurements for number services.

NETMINDER (vendor name): $3,615,000 capital $2,500,000 expense

Development, purchase and deployment of SCP monitoring, reporting, and remote diagnosis/repair required for ported number routing. Allows monitoring and troubleshooting of SCP's. For instance, we can determine how the hits are impacting the SCP's. This allows us to then determine, for example, if additional memory is needed or whether we need to reroute traffic.

NMA (Network Monitoring and Analysis): $15,000 expense

Permits automatic reporting of alarms for certain network elements supporting number services.

Various Service Assurance systems (i.e., CRAS (Cable Repair and Administration System), PREDICTOR, etc.): $1,700,000 expense

Programming to handle LNP FID. Permits the various automated and/or manual maintenance and repair tests against network elements and/or facilities supporting number services.

12.   Equipment 361 C - Personal computers:

361-C Personal Computers
The $100,000 forecast for personal computers reflects the purchases of personal computer equipment for the new Interconnect-Number Portability personnel, dedicated personnel working on Number Portability in other work groups, and a percent allocation of personal computing expenses for those organizations not dedicated to Number Portability. This forecast has changed to reflect recent organization changes (October 30th downsizing as well as departmental reorganizations). The new forecast will change from $100,000 to $66,000.

New Product Development - ICS
Product Manager	$9,100 (hardware-MAC Powerbook 5300cs, software, ethernet connection, printer-HP laserjet)
Implementation Manager	$7,500 (hardware, software)
Technical Manager	$6,000 (hardware, printer)
Systems Manager (% Allocation)	$2,000 (hardware, printer)
Service Design Coordinators, Data Technician, Account Management	$24,000 (allocation of software/ hardware purchases for new interconnect services group)

Advanced Technologies
Senior Technical Consultant	$7,500 (hardware, software for modeling)

Network/Provisioning
Project Manager	$5,000 (hardware, software)
Industry Liaison	$5,000 (hardware, software)

TOTAL: $66,100